



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,603	09/10/2003	Hwa-Sung Shin	1349.1258	1917
21171	7590	09/06/2007		
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER MORRISON, THOMAS A	
			ART UNIT 3653	PAPER NUMBER
			MAIL DATE 09/06/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/658,603

Applicant(s)

SHIN ET AL.

Examiner

Thomas A. Morrison

Art Unit

3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24 and 26-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24 and 26-30 is/are rejected.
- 7) ☒ Claim(s) 31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 24, 26-27 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Publication No. 58-17028 (hereinafter "JP'028").

Regarding independent claim 24, the embodiment in Fig. 1 of JP'028 shows a paper feeding apparatus of an image forming apparatus (English Abstract) having a frame (4), a knock-up plate (1) movably mounted on the frame (4), and a pickup roller (R) picking up a sheet of paper disposed on the knock-up plate (1), the paper feeding apparatus comprising:

a first finger device (7a) movably disposed (move side to side) on a first portion of the knock-up plate (1) to contact a first end of the paper;

a second finger device (7) movably disposed (move side to side) on a second portion (near 1A) of the knock-up plate (1) to contact a second end of the paper,

wherein the first and second finger devices (7a and 7) move independently from each other (i.e., one finger device (7a) moves from side to side independently of the other finger device (7)); and the second portion (near 1A) of the knock-up plate (1) is an open portion so that the movement of the second finger device (7) does not interfere

with the knock-up plate (1). See e.g., side-to-side arrows in the embodiment of Fig. 1. The embodiment in Fig. 1 of JP'028 shows all of the features of claim 24, except for a paper guide, as claimed.

The embodiment in Fig. 2 of JP'028 shows that it is well known to provide a paper feeding apparatus with a paper guide (including 21) slidably supported on a knock-up plate (1) for the purpose of adjustably guiding different length sheets supported on the knock-up plate of the paper feeding apparatus in Fig. 2 of JP'028. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the knock-up plate (1) in the embodiment in Fig. 1 of JP'028 with a paper guide slidably supported on the knock-up plate (1) in Fig. 1 of JP'028 for the purpose of adjustably guiding different length sheets supported on the knock-up plate (1) in Fig. 1 of JP'028, as shown in the embodiment in Fig. 2 of JP'028. Thus, all of the elements of claim 24 are met.

Regarding claim 26, Fig. 1 of JP'028 shows that the knock-up plate (1) has first and second sides disposed opposite to each other with respect to a paper feeding direction.

Regarding claim 27, JP'028 shows a knock-up plate raising/lowering portion (including 12, 13 and 14) moving with respect to the frame (4) to raise and lower the knock-up plate (1) with respect to the pickup roller (R).

Regarding claim 29, providing a paper guide on the knock-up plate (1) in the embodiment in Fig. 1 of JP'028 in a manner as shown in Fig. 2 of JP'028 will result in the paper guide being slidably disposed on the knock-up plate (1) in Fig. 1 to move

Art Unit: 3653

toward and away from the knock-up plate raising/lowering portion (including 12, 13 and 14) according to a size of the paper disposed between the paper guide and a side (i.e., front side of knock-up plate (1) in Fig. 1) of the knock-up plate (1).

Regarding claim 30, the knock-up plate raising/lowering portion (including 12, 13 and 14) moves in a first direction (up and/or down). Also, providing the knock-up plate (1) in Fig. 1 of JP'028 with a paper guide in a manner as shown in Fig. 2 of JP'028 will result in the paper guide moving in a second direction (forward and/or backward) perpendicular to the first direction (up and/or down).

2. Claims 24 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,934,667 (Miki) in view of JP'028.

Regarding independent claim 24, Figs. 7A-9 of the Miki patent show a paper feeding apparatus of an image forming apparatus (column 1, lines 16-22) having a frame (11), a knock-up plate (13) movably mounted on the frame (11), and a pickup roller (19) picking up a sheet of paper disposed on the knock-up plate (13), the paper feeding apparatus comprising:

a first finger device (18) movably disposed on a first portion of the knock-up plate (13) to contact a first end of the paper;

a second finger device (18) movably disposed on a second portion of the knock-up plate (13) to contact a second end of the paper,

wherein the second portion of the knock-up plate (13) is an open portion so that the movement of the second finger device (18) does not interfere with the knock-up

plate (13). The Miki patent shows most of the features of claim 24, but does not specifically show a paper guide slidably supported on the knock-up plate (13). Also, Miki does not specifically show that the first and second finger devices (18 and 18) move independently from each other, as claimed. It is noted that Miki shows first and second side guides (12 and 12) on which the first and second finger devices (18 and 18) are coupled via elements 16 and 16.

Fig. 1 of JP'028 shows an embodiment with first and second finger devices (7A and 7) mounted on first and second side guides (6 and 6) that can be moved from side to side independently of one another. Likewise, the first and second finger devices (7A and 7) that are mounted on the first and second side guides (6 and 6) can be moved from side to side independently of one another. This side to side movement allows different width sheets to be accommodated between such first and second side guides (6 and 6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the apparatus of Miki with adjustable first and second side guides (12 and 12) for the purpose of allowing different width sheets to be accommodated between such first and second side guides (12 and 12), as shown in Fig. 1 of JP'028. Providing the apparatus of Miki with adjustable first and second side guides (12 and 12) in a manner as taught by Fig. 1 of JP'028 will result in such first and second side guides (12 and 12) of Miki moving independently from each other. Likewise, the first and second finger devices (18 and 18) of Miki that are coupled on the first and second side guides (12 and 12) of Miki will move from side to side independently from each other.

Also, the embodiment shown in Fig. 2 of JP'028 discloses that it is well known to provide a paper feeding apparatus with a paper guide (including 21) slidably supported on a knock-up plate (1) for the purpose of adjustably guiding different length sheets supported on such knock-up plate in Fig. 2 of JP'028. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the knock-up plate (13) of Miki with a paper guide slidably supported on the knock-up plate (13) of Miki for the purpose of adjustably guiding different length sheets supported on the knock-up plate (13) of Miki, as shown in the embodiment in Fig. 2 of JP'028. Thus, all of the elements of claim 24 are met.

Regarding claim 26, Fig. 8 of Miki shows that the knock-up plate (13) has first and second sides disposed opposite to each other with respect to a paper feeding direction.

Regarding claim 27, Figs. 7A-8 of Miki show a knock-up plate raising/lowering portion (15) moving with respect to the frame (11) to raise and lower the knock-up plate (13) with respect to the pickup roller (19).

Regarding claim 28, Figs. 7A-7B of Miki show that the first finger device (18) moves according to a movement of the knock-up plate raising/lowering portion (15).

Response to Arguments

3. Applicant's arguments filed 6/21/2007 have been fully considered but they are not persuasive.

Applicant argues that

Amended claim 24 recites: "...the second portion of the knock-up plate is an open portion so that the movement of the second finger device does not interfere with the knock-up plate." Support for this amendment may be found in at least claims 32 and paragraphs [0061] and [0062] of the specification. In the Office Action, the Examiner relies on Kikuchi, specifically Figure 2, to disclose this feature of claim 24. However, in contrast to claim 24, in Kikuchi the auxiliary sheet loading plates 24, 24a are arranged so that they cover the notches 1a, 1b of the main loading plate 1, and are forcibly energized by a spring 25 so that they are spread forcibly to engage with the width position limiting plates 6, 6a. This feature of Kikuchi provides that when the width position limiting plates 6, 6a are slid in conformity with paper sheets, the auxiliary loading plates 24, 24a are moved together with the width position limiting plates 6, 6a at all times. See Kikuchi, Abstract. Accordingly, since the notches 1a, 1b of the main loading plate 1 are always covered, Kikuchi does not discuss the feature of claim 24 where the second portion of the knock-up plate is an open portion so that the movement of the second finger device does not interfere with the knock-up plate.

In response, Fig. 1 of Japanese Publication No. 58-17028 shows an embodiment in which there are no plates covering open portions of the knock-up plate (1) in Fig. 1 of Japanese Publication No. 58-17028. As such, the second portion (near 1A) of the Knock-up plate (1) in Fig. 1 of Japanese Publication No. 58-17028 is an open portion so that the movement of the second finger device (7) from side to side does not interfere with the knock-up plate (1). Thus, all of the limitations of claim 24 are met.

Allowable Subject Matter

4. Claim 31 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Morrison whose telephone number is (571) 272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3653

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

9/3/2007



PATRICK MACKEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600